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The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment

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Introduction

The gas dispute between Russia and Ukraine in January 2009 was by far the most serious of its kind. The two sides failed to agree a price for Russian gas supply to Ukraine and a tariff for the transit of Russian gas to Europe before previous agreements expired on 31 December 2008. Russian exports to Ukraine were cut off on 1 January. Exports to 16 EU member states and Moldova were drastically reduced on 6 January and cut completely from 7 January. Deliveries to both Ukraine and other European countries restarted on 20 January following the signing of two new ten year contracts. The most seriously affected countries in the Balkans experienced a humanitarian emergency, with parts of the populations unable to heat their homes. Significant economic problems, but not of a humanitarian kind, were also caused in Hungary and Slovakia.

The crisis has far-reaching consequences. Russia's reputation as a supplier to Europe and Ukraine's reputation as a transit country, are seriously damaged. European consumers' efforts to diversify away from Russian gas, which have previously been discussed, but hardly acted on, may be expected to intensify. Projects that diversify transit away from Ukraine, such as the North Stream and South Stream pipelines, are likely to be prioritized. Further restructuring of the Ukrainian gas sector may also be expected.

This paper outlines the background to, and immediate causes and course of, the crisis. It offers an interpretation of the two sides' willingness to allow the dispute to damage their relationship with European consumers. It discusses the role of political and economic factors in the crisis, and surveys the likely consequences of the dispute. Because of the pace of these events, readers should bear in mind that it only contains information available up to 10 February 2009.

1 Background to the crisis[1]

Ukraine is the largest single importer of Russian gas: it has been importing 47–57 bcm/year in recent years, while producing 19–21 bcm/year of its own. Ukraine is also the main corridor for Russian gas exports to Europe, accounting for about 80 per cent of transit volumes; the remainder is transported through Belarus. Estimated volumes and values are given in Table 1.

The relationship began in Soviet times, when infrastructure for Ukrainian industry and associated urban development was geared to gas as the main energy source. In the 1960s this came mainly from Ukraine's own onshore fields, but these went into decline in the 1970s, and by the time the Soviet Union broke up in 1991, Ukraine was heavily dependent on gas from the western Siberian fields. Russia was almost completely dependent on Ukraine for gas transit to Europe, the pipelines having been built on the assumption that the two countries would continue to collaborate under the Soviet umbrella.

The post-Soviet economic slump in both Russia and Ukraine during 1991–97 heightened this mutual dependence. For Russia, European gas sales were a crucial source of reliable revenue in hard times; Ukraine (along with other CIS importers) struggled to pay for gas but had no way of replacing it as a fuel source. A cycle of problems between Russia and Ukraine persisted through the 1990s: large-scale deliveries to Ukraine of gas at prices which probably did not even cover costs of delivery; accumulation of Ukrainian debts to Russia, linked to domestic non-payment; theft of gas from the transit system; and Russian pressure on Ukraine to exchange equity in the transit network and storage facilities for gas debts. The resulting disputes led Russia to cut off supplies to Ukraine on several occasions during the 1990s.[2]

[1] More detailed accounts of the Russo–Ukrainian gas relationship appear in our other publications. Available from the OIES website: Stern, Jonathan, (2006), *The Russian–Ukrainian Gas Crisis of 2006,* (Oxford, OIES, January 2006), and Pirani, Simon, (2007), *Ukraine's Gas Sector* (Oxford, OIES, 2007). Forthcoming in February: Pirani, Simon (ed.), (2009), *Russian and CIS Gas Markets and Their Impact on Europe* (Oxford, Oxford University Press, 2009). See also: Stern, Jonathan (2005), *The Future of Russian Gas and Gazprom* (Oxford, Oxford University Press: 2005) and Yafimava, Katja and Jonathan Stern, (2007) *The 2007 Russia–Belarus Gas Agreement*, Oxford Energy Comment (Oxford, OIES, January 2007); Yafimava, Katja, (2007) *Post-Soviet Russian–Belarussian Relationships: the Role of Gas Transit Pipelines*, Ibidem–Verlag, Stuttgart: 2007.

[2] For details and similar problems in relation to gas prices and debts experienced in Russia itself during this period, see Stern (2005).

Table 1. Ukraine's gas trade and transit: an outline

	2003	2004	2005	2006	2007	2008	2009 projected
Ukraine gas balance							
Ukraine, consumption	68.7	68.1	68.9	65.9	62.8	59.3	58
Ukraine, technical requirements	7.6	7.6	7.4	8.1	7.0	7.0	7.0
Ukraine imports (presumed)	56.9	55.4	55.8	53.3	49.1	54.5*	40*
Ukraine production	19.4	20.3	20.5	20.7	20.7	20	20
Import price ($/mcm)	$50	$50	$44–80	$95	$130	$179.5	$175–$360
Total value of imports, $ bn estimates	$2.84bn	$2.77bn	$3.2bn	$5.06bn	$6.38bn	$8.44bn	$7.0–14.4bn***
Transit							
Volumes transported, bcm/year							
To Europe	112.4	120.3	121.5	113.8	112.1	116.9	117
To the CIS**	16.8	16.8	14.9	14.7	3.1	2.7	3
Cost of transit $/100km/mcm	(barter)	(barter)	$1.09	$1.60	$1.60	$1.70	$1.70
Value of transit services, $ bn, estimates	$1.48bn	(n/a)	$1.5bn	$2.2bn	$2.1bn	$2.2bn	$2.35bn

* In 2008, Ukrainian imports plus production were higher than consumption plus technical requirements, presumably because additional gas was put into storage. In 2009, the import figure includes the amount Ukraine is contracted to buy from Russia. Its gas balance will presumably be supplemented from additional amounts in storage that it has reportedly bought from Rosukrenergo

** These are volumes transited to Moldova, and via eastern Ukraine to southern Russia. The latter volumes were sharply reduced in 2007 due to new internal Russian pipelines being commissioned.

Source: Volumes 2003–08, *Energobiznes*, based on fuel and energy ministry statistics; volumes 2009, as stated in contracts; prices, from public sources.

***these are the values which would result from importing 40 bcm at prices of $175 and $360/mcm respectively. The lower the volume of gas Ukraine will actually import and the later in the year it imports (assuming oil prices do not increase substantially), the lower will be the actual figure. With favourable assumptions, it could be similar to the 2008 value.

In the late 1990s, Gazprom and the Russian government adopted two significant tactics to manage the Ukrainian trade. First, it encouraged Turkmenistan, the second-largest CIS producer, to sell gas to Ukraine, freeing up Russian volumes for Europe. Second, it used a series of intermediary trading companies (Itera from 1998, Eural Trans Gas from 2003, Rosukrenergo (RUE) from 2005) to transport, and sometimes to supply, the gas to Ukraine. RUE, which is owned 50 per cent by Gazprom (formerly by Gazprombank), 45 per cent by the Ukrainian businessman Dmitry Firtash and 5 per cent by Ivan Fursin, continued as shipper of gas to Ukraine until the end of 2008.[3] The use of intermediaries was long criticized in European government circles and by corporate governance bodies (where there was concern about their opacity), and by various Ukrainian politicians (who objected to the excessive profits and corporate power bestowed on the intermediaries' owners).[4]

The economic recovery of Russia and Ukraine in the 2000s made possible some improvement in this chaotic relationship and raised the prospect that post-Soviet politicized horse-trading could be superceded by commercial relationships. But with both Russia and Ukraine integrating into world markets, serious problems now arose with respect to gas import prices. From 2002, as world oil prices rose steadily, so did European gas prices, which are tied to prices of (mainly) gasoil and fuel oil. From 2004, the differential between European prices and those charged to CIS countries widened sharply and Gazprom called for CIS prices be raised to the level of European netback (i.e. European border prices minus transportation charges). As a result of the 2006 crisis, Gazprom pursued this demand still more vigorously. The Russian government's decision in November 2006 to create equivalence between domestic gas prices with those in Europe by 2011 gave impetus to this principle.[5] On the other hand government influence was largely responsible for the principle being applied unevenly: countries that agreed to share ownership of their pipeline systems with Russia (e.g. Belarus and Armenia) were able to negotiate much longer timetables for import price increases, while Gazprom was given leeway to raise prices more rapidly in countries whose governments sought to distance themselves from Moscow politically (in particular Georgia and Ukraine).

[3] For the history of this relationship see Pirani (2007).

[4] Global Witness, 'It's a Gas – Funny Business in Turkmen–Ukraine Gas Trade', April 2006. Available at: www.globalwitness.org/media_library_detail.php/479/en/its_a_gas._funny_business_in_the_turkmen_ukraine_g

[5] For details see Stern in Pirani (2009). Note that this only applied to non-residential prices and that because of transit tariffs and export taxes, Russian prices can be less than half of European levels and still be considered 'equivalent'.

In Ukraine's case, a dispute erupted in January 2006 that concerned both prices (Gazprom's offer and Ukraine's bid were further apart than ever), and the terms on which gas would be imported (i.e. how the Turkmen–Russian–Ukrainian relationship would be managed and what role the intermediaries would play). That dispute is the only occasion prior to January 2009 when Russian supplies to a significant number of European countries were significantly disrupted. Russia cut off Ukrainian import volumes for three days, Ukraine diverted volumes destined for Europe, and supplies to some central European countries fell briefly. However, supplies were never completely cut off, and in most countries the effects amounted to little more than minor inconvenience.[6] The agreement that ended the dispute made little progress towards European netback prices, but it strengthened Russia's position in four other respects:

1. It ended the practice of barter deals (imported gas for transit services) that had blighted Russo–Ukrainian gas trade since 1991, and thereby paved the way for greater transparency and the use of market mechanisms. Transit fees were henceforth to be paid for in cash; they were lower than those in central Europe, as were import prices, while storage tariffs paid by RUE were a fraction of comparable rates elsewhere.

2. The status of transit and supply contracts changed, although how they changed is open to different interpretations. Gazprom's version of events is that supply and transit were separated, and a long term transit contract, which was intended to make supplies to Europe independent of Russo–Ukrainian gas trade, was signed. Two alternative views of the contractual situation are that:
   - there was a separate transit contract from 2002, but what was missing after 2006 was an intergovernmental agreement that bound the two contracts together. In addition, the transit contract was between Gazprom and Naftogaz, whereas the 2006 supply contracts were between RUE (seller) and Naftogaz and Ukrgaz–Energo (buyers).
   - there never was any other separate supply contract, and that the so called 'separation of transit and supply' essentially amounted to the conclusion of the 2006 January crisis one page agreement. This effectively annulled

[6] See footnote 9 below, Stern (2006).

supply provisions of the 2002 contract, whereas the transit provisions of that contract remained valid.

3. The agreement confirmed that Ukraine would no longer negotiate directly with Turkmenistan. All Turkmen export volumes were now bought by Gazprom Export at the Turkmen border and, apart from small amounts used in Russia, resold to RUE, which would ship and supply Ukraine's imports and sell 7–10 bcm/year in central Europe. Prices were based not on a European netback calculation, but on a 'net forward' from Turkmen export prices, which reached an average of $140/mcm in 2008.[7]

4. A wholesale trader, Ukrgaz–Energo, a joint venture between RUE and the Ukrainian state-owned oil and gas company Naftogaz Ukrainy, was given a dominant position in the Ukrainian domestic gas market.

Much as Gazprom would have liked to impose European netback prices on Ukraine at this stage, it was unable to. It was not just that this would have imposed a burden on the Ukrainian economy that its government was desperate to avoid; it was also that that government, and Naftogaz Ukrainy, had shown they were prepared to use their near-monopoly of Russian transit to Europe as the ultimate bargaining chip. During the dispute, when Russia withheld volumes destined for Ukraine from the network, Ukraine simply withdrew gas destined for Europe.[8] This balance of forces, and the sheer rapidity of European price increases, meant that Gazprom failed to narrow the differential between European and Ukrainian prices, shown in Table 2.

[7] Prices for Turkmen gas – which is the majority of Central Asian gas bought by Gazprom – and for Uzbek gas tend to be the same, and were $130/mcm in the first half of 2008 and $150/mcm in the second half; Kazakh export price was $180/mcm. For details of Central Asian gas exports see the chapters on Turkmenistan, and those by Zhukov and Yenikeyeff in Pirani (2009).

[8] Ukrainian officials have publicly denied that any European gas was diverted to their customers during the 2006 dispute, but given the loss of gas in Europe, no other explanation is possible, unless Gazprom failed to deliver those volumes.

Table 2. Illustrative European border prices, Transit Charges, Ukrainian Netback and Actual Import Prices in Dollars per Thousand Cubic Metres ($/mcm)*

	$/mcm European border (est)	**Transit (est.)**	**Netback (est.)**	**Actual import prices**	**Differential**
2004	143.05	27.00	116.05	50	66.05
2005	189.31	31.58	157.73	50–80	77.73–107.73
2006	246.51	36.53	209.98	95	114.98
2007	254.48	38.35	216.13	130	86.13
2008	368.32	41.13	327.19	179.50	147.69

*note that the only figures which we can be sure of in this table are the Ukrainian import prices. None of the other data are in the public domain. Our European price estimates for 2008 are significantly below the figure of $450 agreed as the starting point for the 2009 price. The point the data illustrate is that even at much lower European price estimates, the differential is still substantial.

In 2006–08, Gazprom's drive to introduce European netback prices for CIS importers was given fresh impetus by a new surge in oil prices, which in 2008 took European gas prices briefly higher than $500/mcm. In January 2007 the growing gap between CIS and European prices caused a crisis in Russo–Belarussian relations, which was resolved when Belarus agreed to sell a 50 per cent share of its transit network to Gazprom by 2010 (with the latter set to make four equal payments during 2007–2010) and to accept a three-year timetable for transition to European netback prices.[9] Ukraine's import prices for 2007 were settled without a major dispute, perhaps in part because Russia did not want to be in conflict with both the transit countries at the same time.

However, conflicts between political and business groups in Kiev – which had long been a factor in Ukraine's gas sector – now came to the fore in negotiations with Moscow. The Ukrainian government formed in September 2006, headed by Viktor Yanukovich of the Party of Regions – which has a strong electoral base in Russian-speaking eastern Ukraine – was dismissed in September 2007 and elections called. These resulted in the return of Yulia Timoshenko to the prime ministership. She immediately set out to make good her election promise to drive RUE (and its part owner Firtash) out of the gas trade; demanded direct sales by Gazprom Export to Naftogaz; and initiated the dissolution of Ukrgaz–Energo, which acted

[9] The gas price was set to correspond to a percentage of the price at which Gazprom exports its gas to Europe – 67 per cent, 80 per cent and 90 per cent for 2009, 2009, and 2010 respectively. See Yafimava and Stern, op. cit.

as a vehicle through which RUE and its owners were establishing a strong position in the Ukrainian gas market.

2 Russo–Ukrainian gas relations in 2008

In late 2007, import prices for 2008 gas supplies to Ukraine were set at $179.50/mcm, up from $130/mcm in 2007; all imports were to be sold by RUE to Ukrgaz–Energo at the Ukrainian border. Transit tariffs were set at $1.70 per thousand cubic metres per hundred kilometres ($/mcm/00km), up from $1.60/mcm/00km the previous year. (Despite the fact that Gazprom treated Ukrainian supplies as if they had been purchased on the Turkmen border and physically delivered to Ukraine, the likelihood is that this did not happen and that most of the gas which Ukraine imported has always been physically sourced from Russia.[10])

Timoshenko's return as prime minister put these arrangements in doubt. Ukrainian state-owned companies including Naftogaz Ukrainy voided sales contracts with Ukrgaz–Energo, and by February, Gazprom was complaining loudly that Ukrainian offtake of gas was not covered by contracts. On 12 February 2008, presidents Putin and Yushchenko agreed:

- to replace RUE, from 2009, by a trader owned jointly by Gazprom and Naftogaz Ukrainy;
- that Ukrgaz–Energo would be replaced by Naftogaz as the importer of central Asian gas,
- that a wholesaler, wholly owned by Gazprom, would be licensed to work on the Ukrainian market. A series of details were to be worked out at corporate level.

When negotiations faltered on 3 March, Gazprom reduced the pressure in transit pipelines, as it had done in January 2006. Naftogaz responded by warning that if Russia could not guarantee supplies to Ukraine, Naftogaz could not guarantee transit of volumes to Europe. Agreements signed before pressure in the pipes was restored weakened Firtash's position in the domestic market, but strengthened Gazprom's: a 100 per cent Gazprom-owned Ukrainian trader, Gazprom–Sbyt, was guaranteed a 7.5 bcm/year share of the lucrative industrial market. Moreover, Kiev committed itself to negotiate on the basis of European netback

[10] Because gas is a homogenous product, it is impossible to be certain where any gas consumed in any particular location originated. However, we shall see below that this methodology of 'netting forward' from Central Asia disappeared in the 2009 contract.

prices, and the three central Asian exporters announced in Moscow that they also would, from 2009, base sales prices to Gazprom on European netback.[11]

Some important elements for future cooperation in the gas sphere – moving towards European netback prices, dispensing with the intermediaries, agreeing on direct Gazprom participation in the Ukrainian market – were set out in the February agreement. In October 2008 they were set out in considerably more detail, in a memorandum between the countries' governments signed by prime ministers Timoshenko and Putin[12]. The memorandum included the following provisions:

-- From 1 January 2009, Naftogaz would buy gas directly from Gazprom, and would be the sole importer to Ukraine. (This ruled out a return of Ukrgaz–Energo.) This arrangement would be dependent on clearance of Ukrainian debts, timely payment for future deliveries, and access to Ukrainian customers for Gazprom subsidiaries (implying a continuation or expansion of the 2008 arrangement, whereby Gazprom Sbyt sells 7.5 bcm to Ukrainian industrial customers);

-- Import prices and transit tariffs to be raised step by step to 'market, economically based and mutually agreed levels' within three years;

-- The 'necessity for uninterrupted transit of gas across Ukrainian territory on a long-term basis' was recognized;

-- Gazprom and Naftogaz would jointly export some gas to Europe, including incremental volumes from storage. (This gave Ukraine the prospect of exposure to the European market from which it had effectively been excluded by the 2006 agreement.)

Within three weeks, on 24 October, an agreement, *On the Principles of Long-term Cooperation in the Gas Sector*, was signed by the chief executives of Gazprom and Naftogaz

[11] 'One step forward, two steps back for Timoshenko', *Gas Matters*, March 2008, p. 1, 'Winners and losers in the March 2008 Russo–Ukrainian "gas war" ', *Gas Matters*, April 2008, p. 14.
[12] Whereas earlier in the year Timoshenko had struck an antagonistic stance, and Yushchenko acted as peacemaker, with Moscow.

– Aleksei Miller and Oleg Dubyna.[13] This built on the Putin–Timoshenko memorandum, repeating the above points, and also specifying:

-- That Naftogaz debts owed to RUE would be converted into a debt to Gazprom;

-- That a long-term contract, providing for the three-year transition to 'market, economically based and mutually agreed' gas prices was to be signed by 1 November 2008;

-- That Naftogaz's guarantee of 'reliable and uninterrupted transit' would apply to volumes of at least 120 bcm/year;

-- That a two-month supply contract would be concluded by 30 October 2008 for Central Asian gas to be supplied by Gazprom to Naftogaz at $179.50/mcm (implying that the intermediary RUE and the trader Ukrgaz–Energo would be removed from the import business immediately);

-- That the January 2006 agreements would be annulled as soon as the conditions of this agreement were met.

It is clear from the text of this agreement that there had been some renegotiation on the issue of transit fees. The Putin–Timoshenko memorandum referred to transit fees being moved to 'market, economically-based' levels along with import prices, but the Miller–Dubyna agreement referred to transit fees retaining their 2008 level ($1.70/mcm/00 km), and envisaged a long-term transit contract with fees 'correlated, with a declining coefficient' to the price of 6.4 bcm of 'technical' (fuel) gas used by the pipeline system during transit.[14]

Both the prime ministers' memorandum and the corporate agreement refer to the possibility of joint Gazprom–Naftogaz sales in Europe, but neither document says anything about RUE's sales of central Asian gas in central Europe. RUE part-owner Dmitry Firtash stated in January 2009 that the company had contracts to supply 7 bcm of gas to Poland, Hungary, and

[13] A copy of the document was reproduced in Alla Eremenko, 'Novy god pod "Gazpromom" otmeniaetsia?', *Zerkalo Nedeli*, 18 October 2008, www.zn.ua/1000/1550/64418/. Oleg Dubyna, CEO of Naftogaz, was elsewhere quoted as refusing to confirm that the copy was genuine, but there seems little reason to doubt that it was.

[14] For a discussion of 'technical gas' see Box 2.

Romania in 2009, which it would fulfil. The future of this part of RUE's business is unclear at the time of writing.[15]

Why did the two parties fail to reach agreement on 2009 gas prices and transit tariffs? Or, put another way: having made so much progress in October, and having set out a basis for much improved relationships in the gas sphere, why did they fail to implement what they had agreed?

Relying primarily on the mass of publicly available material, we would answer as follows.[16] Certainly a big part of the problem was Naftogaz's failure to clear debts for gas delivered. Large amounts remained outstanding on and after 30 October, the deadline by which Miller and Dubyna had agreed to sign a long-term supply contract. During November, a $268.7 million payment was made, out of $550 million owing for September. On 2 December, Naftogaz acknowledged that it owed around $1 billion, and that it was having difficulty making payments on time due to unexpected losses during 2008 (2.8 million hryvna of unpaid accounts by district heating companies in 2007–8, 1.6 million hryvna for Value Added Tax not paid on imports in the first quarter of 2006, and 600 million hryvna due to the fall in the value of the hryvna against the US dollar). In mid December Gazprom stated that a debt of $2.195 billion had accumulated; in response, Naftogaz made a payment of $800 million and promised that a further $200 million would soon be paid.[17]

From this point the two sides engaged in an increasingly acrimonious public dispute. Gazprom proposed to make an upfront payment for transit at the 2008 rate ($1.70/mcm/100km), in order to provide funds for the debt to be cleared, but this offer was rejected by Naftogaz.[18] On 19 December Gazprom said:

(a) Ukraine had stated that no new payments would be made until the end of 2008,

(b) in this case – and if no other ways of settlement other than cash payment will be agreed – no supply contract could be signed for 2009.

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[15] Reznik, Irina,'RUE uzhe kontroliruet 75 per cent prodazh gaza na Ukraine', *Vedomosti*, 11 January 2009.

[16] In dealing with the progress of the dispute, we have relied on huge quantities of material from the websites of governments, gas companies, newspapers, and news agencies, as well as on sources within the Russian, Ukrainian and European gas industries. We have concentrated on providing references for statements that are disputed, or controversial, or for information not widely available, rather than burdening the text with sources for widely available or uncontroversial information.

[17] Naftogaz press release, 2 December 2008; 'Ukraina ne rasschitalas' v polnom ob"eme za postavki gaz v sentiabre', www.interfax.ru, 2 December 2008.

[18] Aleksandr Chernovalov, 'Poruchitel'naia istoriia', *Kommersant*, 17 December 2008.

This version of events was vehemently denied by a Naftogaz spokesman.[19] On the same day Bogdan Sokolovsky, the Ukrainian president's spokesman on international energy security, stated that Ukraine, having paid for September and October supplies, no longer owed money to Gazprom and that, although it had to pay for November supplies before the end of 2008, no payment for December supplies would be due until the end of January 2009.[20]

As early as the third week of November, Gazprom CEO Miller, following a meeting with the Russian president, announced that if no agreement was reached by the end of the year, prices could rise to $400/mcm on 1 January 1 2009, and a few days later Prime Minister Putin added that if there was any interference with transit gas, supplies to Ukraine would be cut off.[21] These warnings were repeated throughout December with the addition that disruption to European supplies could result (see the section on the position of Gazprom and the Russian government below). The European Commission made no attempt to intervene, but the Energy Charter Secretariat issued a statement on 23 December in which the Secretary General made reference to the dispute (before any gas supplies had been cut off) and recalled the principle of uninterrupted transit.[22] This could be construed as a reminder to Ukraine of its obligations under the Energy Charter Treaty, which it has signed and – unlike Russia – ratified. (For details, see the section on European-based organizations below.)

Naftogaz, although in serious financial difficulties, was in a position to pay its debt. The government had amended the budget to allow for a guarantee of $2 billion to be extended to Naftogaz, on the basis of which it could have borrowed from state banks. The Ukrainian president had also instructed the national bank to ensure that foreign exchange was made available to Naftogaz in time. The IMF's $16.5 billion loan to Ukraine was earmarked for other purposes, but clearly gave the state finances a substantial cushion; at the height of the debt dispute the *Financial Times* reported that 'the IMF says Kiev has the means to pay'.[23] In the end, Naftogaz made a payment of $1.52 billion for outstanding gas deliveries to RUE on

[19] 'Ukrainu snova otkluchaiut'. Available at:www.vedomosti.ru, 19 December 2008; 'O raschetakh NAK "Naftogaz Ukrainy" ', Naftogaz press release, 23 December 2008; '"Naftogaz Ukrainy" otritsaet dolgi za rossiiskii gaz', *Kommersant–Ukrainy*, 23 December 2008.
[20] 'Predstavitel' Iushchenko: Naftogaz nichego ne dolzhen Rossii za gaz', 19 December 2008. Available at: www.vz.ru/news/2008/12/19/240483.html
[21] *Interfax*, November 20–26, 2008, p. 6 and December 4–18, p.6.
[22] 'Secretary General Issues Statement on Russia–Ukraine Gas Dispute', Energy Charter website. Available at: www.encharter.org/index.php?id=21&id_article=165&L=0
[23] Wagstyl, Stefan and Roman Olearchyk, (2008), 'Heat rises in Russia–Ukraine gas talks', *Financial Times*, 16 December 2008

30 December. Gazprom insisted that a further $614 million in fines and penalties was outstanding, although on 2 January Naftogaz claimed that no further amounts were outstanding, and said it was ready to go to international arbitration to resolve this issue.[24] However, in terms of reaching agreement, this was too little, too late. Furthermore, on 31 December, the chief executive of Naftogaz, Oleg Dubyna, appears to have written to Gazprom, warning that if it delivered gas for transit to Europe, Naftogaz would consider this gas to belong to an 'unidentified owner' and it could be confiscated under Ukrainian customs law. Assuming the letter was genuine – a facsimile of it was reproduced by an independent media outlet, as well as being presented to journalists by Gazprom representatives, and Dubyna at no time denied its existence[25] – it amounted to little more than a threat to divert gas as Ukraine had done in 2006.

Before we come to the events of the crisis itself, unresolved questions remain about its origins. First, why did Gazprom allow Ukrainian debt to build up to even the $1.6bn which Naftogaz acknowledged was due, let alone to the $2.2 billion which Gazprom was claiming should be paid by the end of the year? Surely, even reasonably prudent commercial practice should have dictated that supplies to Ukraine should have been cut off much earlier, while the existing contract had at least some weeks to run. One reason could be that, following the signing of the October Putin–Timoshenko memorandum, Gazprom did not want to commit the unfriendly act of cutting off gas, because it still had hopes that a new contract could be concluded amicably. Rapid settlement of 2009 supplies, prices, and tariffs was in Gazprom's best interest, since it would send a reassuring message to its European buyers that any repetition of the January 2006 events would be avoided. At the same time, dramatically falling oil, and hence gas, prices were already certain to translate into sharply falling Gazprom earnings in 2009, making Gazprom even keener to collect all possible revenues, including those from Ukraine. Thus Gazprom made the conclusion of a new 'transition' contract (i.e. with a step-by-step increase to European price levels) with Ukraine conditional on a full repayment of the debt.

[24] Gavrish, Oleg et al., (2008), 'Pravitel'stvo vypisyvaet "Naftogazu" garantiu', *Kommersant*, 24 December 2008; 'Iushchenko rasskazal', www.ukroil.com.ua, 24 December 2008; 'Ukraina polnost'iu rasschitalis'', press release of the Ukrainian presidential administration, 30 December 2008; 'Gazprom i Naftogaz: spornye voprosy ne resheny', www.interfax.ru, 2 January 2009; Naftogaz press release, 2 January 2009
[25] 'Naftogaz i Gazprom: perepiska', Ekho Moskvy radio site, www.echo.msk.ru/blog/echomsk/563350-echo.phtml, 1 January 2009

Another reason for the huge build-up of debt could be that RUE – to which most of the debt was owing – had failed adequately to monitor the situation and coordinate its actions with Gazprom, but since Gazprom is a 50 per cent owner of RUE that seems implausible. In any event, quite aside from governance issues, it illustrated other problems arising from the use of an intermediary: was it RUE's responsibility to cut off Ukraine because of the high level of debt or was it Gazprom's? When Gazprom claimed that it had not received the $1.52bn which Naftogaz paid to RUE on 30 December by the end of the year, there was some lack of clarity as to whether this was RUE's fault or a failure of the banking system to process the paperwork sufficiently quickly.

Finally, a lesson from 2006 – and from all previous crises – was that the Russia–Ukraine contract should not have been allowed to run out at the end of the year in the middle of winter. General European gas industry practice is that the gas year (and gas contracts) runs from 1 October to 30 September the following year. While weather can still be cold at the beginning of October, it is far preferable to the 31 December expiry date. Yet neither side had made any attempt to change the term of the contract.

3 The Crisis of January 2009: suspension of supplies to Ukraine and Europe

Box 1. The Russia–Ukraine Crisis of 1–22 January, 2009: major milestones

- 1 January: Gazprom cuts all supplies for Ukrainian consumption, while supplies to Europe continue
- 5 January: Gazprom alleges that 65.3 mmcm of gas has been 'stolen' during the first four days of the year; Ukraine responds that in the absence of a supply and transit contract it is entitled to take this 'technical' (fuel) gas
- 6 January: deliveries to Europe drastically reduced
- 7 January: deliveries to Europe completely cut off
- 11 January: EU monitors deployed
- 13–17 January: Gazprom cites daily attempts to resume flows 'blocked by Ukraine'
- 14 January: letter from Naftogaz to Gazprom cites lack of a 'technical agreement' preventing resumption of flows
- 19 January: ten year supply and transit contracts signed
- 20 January: gas flows to Ukraine and Europe restart
- 22 January: gas flows to all European customers returning to normal levels

The first four days of the crisis were relatively uneventful. But in sharp contrast to 2006 – when by 4 January the crisis was over and flows were returning to normal – in 2009 this was the starting point of a more serious conflict. On 4 January, Gazprom claimed Ukraine had 'stolen' 50 million cubic metres (mmcm) in the 24 hours up to 10.00am on that day – 25 mmcm from Gazprom's European customers and 25 mmcm from RUE's stored gas.[26] On 5 January, Gazprom claimed that during the first four days of the year Ukraine had 'stolen' 65.3 mmcm of gas and called upon Ukraine to make this up by supplying from its own resources a corresponding volume on its western border.[27] Naftogaz Ukrainy published the actual daily volumes it claimed had flowed on those days, showing a discrepancy of only

[26] 'Gazprom calls on Naftogaz Ukrainy to resume negotiations', *Ukrainefacts*, 4 January 2009.
[27] 'Gazprom reduces the volume of gas supply to the Ukrainian gas transportation system', *Ukrainefacts*, 5 January 2009. It was not clear whether the 50 mcm was included in, or additional to, the 65.3 mcm.

52.2 mmcm of (technical) gas used by the network over a six day period (Table 3). Ukraine further claimed that up to 23 mmcm/day of 'technical' (fuel) gas was needed to operate the network and, in the absence of a supply and transit contract, it was entitled to take this fuel gas out of European transit volumes (Box 2). However, during 1–5 January substantial – even if incomplete – volumes of gas continued to flow to Europe.

Box 2. The Issue of 'Technical' (Fuel) Gas

Gas required to run the compressor stations is generally known in the gas industry worldwide as 'fuel gas'. General practice is that fuel gas is provided by the transportation/transit company and included in the tariff charged to the shipper i.e. there is no separate price or tariff charge for this gas. In the former Soviet Union it has customarily been referred to as 'technical' gas and we have used this label in this study. During the negotiations, the Ukrainian side periodically raised the issue of a separate (discounted) price for this gas. The issue of technical gas, which would come to play an important part in the crisis, was raised from the first day. On 1 January, Naftogaz issued a statement saying it guaranteed to fulfil all its obligations on transit, but then qualified this: it would transit Russian gas to European consumers 'exclusively in the volumes provided for in existing agreements, which result from pre-contractual negotiations'; in the absence of 'an additional agreement regarding transport', it could not: 'define the conditions for settlement for transit services', 'undertake customs declarations for the volumes of transit from importer countries' or 'guarantee synchronized operation of the gas transport systems of Ukraine, Russia, and the EU'.[28] In a further statement two days later, it clarified that this meant it would take technical gas, at the rate of 23 mmcm a day, from volumes bound for Europe. Its argument was that this was the amount specified in the last intergovernmental memorandum attached to the transit contract signed in 2002, to cover 2003–13.[29] Bogdan Sokolovsky, President Yushchenko's spokesman on international energy security, confirmed this in a statement that the Ukrainian pipeline system was receiving 283 mmcm a day, which was all being transported to Europe 'with the exception of "technical" gas'.[30] Gazprom spokesman Sergei Kuprianov defined the use of technical gas from the Russian volumes as 'stealing', and announced that Gazprom would take the matter to the international arbitration court at Stockholm; on 4 January he stated in a press release that 50 mmcm had so far been 'stolen' in this way.[31]

[28] 'NAK "Naftogaz Ukrainy" garantiruet vypolnenie vsekh obiazatel'stv', Naftogaz Ukrainy website, 1 January 2009
[29] 'NAK "Naftogaz Ukrainy" schitaet svoi deistviia legitimnymi', Naftogaz Ukrainy website, 3 January 2009
[30] 'B. Sokolovskii: Ukraina v polnom ob"eme vypolniaet svoi obiazatel'stva po tranzitu gaza', www.president.gov.ua, 3 January 2009
[31] 'Ukraine accused of stealing gas', BBC News website, 2 January 2009; 'Za proshlye sutki evropeiskie potrebiteli', Gazprom website, 4 January 2009

Table 3. Supply of Russian Natural Gas to Ukraine and Transit for the Period 1–6 January, 2009, according to Naftogaz Ukrainy in Million Cubic Metres (mmcm)

Date	Supplies from Russia	Volumes of transit to Europe and Moldova	Difference between supplies and transit volumes
01/01/2009	318.2	318.4	–0.2
02/01/2009	300.0	295.2	+4.8
03/01/2009	293.2	269.8	+23.3
04/01/2009	303.1	269.1	+34.0
05/01/2009	214.0	228.0	–14.0
06/01/2009	59.7	55.4	+4.3
Total	**1488.2**	**1435.9**	**+52.2**

Source: *NJSC Naftogaz of Ukraine is indignant at OJSC Gazprom's statements*, Naftogaz Ukrainy website, 7 January, 2009.

The night of 5 January and early hours of 6 January were possibly the key moments in this crisis as far as deliveries to Europe were concerned. On the 5th, a televised (and rather obviously staged) conversation between Prime Minister Putin and Gazprom CEO Miller rehearsed all of the Russian grievances against Ukraine and culminated in Putin agreeing with Miller's proposal to reduce the gas flows, and instructing him to inform Gazprom's European partners about the reasons for this action.[32] In addition, and somewhat bizarrely, Gazprom said that the Federal Customs Service had informed it that because of the alleged theft of the 65.3 mmcm, the company was in violation of Russian customs and currency legislation, providing it with another reason to withhold these volumes.[33]

On 6 January, Gazprom deputy CEO Aleksandr Medvedev stated at press conferences in both London and Berlin that Ukraine had blocked three of the four transit lines 'in an

[32] The logic of the discussion suggests that Putin is referring to cutting off the 65.3 mmcm which Ukraine was alleged to have stolen, rather than cutting off the entire flow of gas to Ukraine and Europe. The text of the Putin/Miller exchange can be found in: 'Predsedatel' pravitelstva Rossiskoi Federatsii V.V Putin provel rabochuiu vstrechu s predsedatelem pravleniia OAO Gazprom A.B. Millerom', www.government.ru/, 5 January 2009; 'Gazprom reduces the volume of gas supply to the Ukrainian gas transportation system', *Ukrainefacts*, 5 January 2009.

[33] This part of the text reads: 'The Federal Customs Service instructed OAO Gazprom to take immediate measures and optimize gas delivery routes and regimes for European consumers and other measures necessary to comply with customs and currency legislation of the Russian Federation. In this connection Gazprom decided to reduce the supply of gas to the gas transportation system of Ukraine by 65.3 million cubic meters, i.e. by the volume that accumulated on the territory of Ukraine from 1–4 January 2009'. 'Gazprom reduces the volumes of gas supply to the Ukrainian gas transportation system', *Ukrainefacts*, 5 January 2006.

unprecedented and unilateral move' at 02.30; Naftogaz categorically denied this, and stated that it had that day used its own gas for technical purposes.[34] President Yushchenko stated that Gazprom had sharply reduced the volumes it was putting in the system (from 262 mmcm/day to 73 mmcm/day during the course of the day).[35] Later that day, Gazprom spokesman Kuprianov stated that the company had on that day put only 64.7 mmcm in to the system, and was expecting Ukraine to make up the 65.3 mmcm needed to make 130 mmcm of orders. It remains unclear why only 130 mmcm were needed that day compared to the usual 280–300 mmcm, but it may have been part of a less well-articulated Russian refusal to continue deliveries in the event of (what was construed as) ongoing gas theft.[36] On 7 January 2009, Gazprom CEO Aleksei Miller stated that Gazprom had stopped all deliveries into the system because Ukraine had closed it down; Naftogaz said it had closed down the system because Gazprom had stopped delivering gas at 07.44.[37]

At this point, on 7 January, the second and more serious stage of the dispute began. Gas was cut off completely to countries in south-eastern Europe which are 100 per cent dependent on Russian imports, and partially to other countries, for 13 days. The Russian and Ukrainian sides blamed each other; neither displayed great urgency about moving towards agreement. It is important to underline the unprecedented nature of this situation. Supplies to Europe had never been halted since the gas transit system was built in Soviet times, and even in 2006 the shortfalls in supplies to Europe resulted not from European supplies being completely halted, but from Ukraine being cut off and diverting a proportion of European volumes for its own use.

With each side blaming the other for the stoppage, it was clear that independent oversight of gas flows would be necessary. In the days up to 10 January, a European Union initiative established the terms of reference for a monitoring mission with experts drawn from both sides of the dispute; the EU and all the major continental European gas companies to be

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[34] 'Alexander Medvedev gave a joint press briefing after meeting with Michel Glos, German Minister of Economics', *Ukrainefacts*, 6 January 2009; "OAO "Gazprom" v chetyre raza ot planovykh ob"emov sokratil postavki', Naftogaz Ukrainy press release, 6 January 2009.

[35] Although this figure did not correspond exactly with the Naftogaz data in Table 3; 'Viktor Iushchenko: Ukraina ispol'zuet dlia svoikh potrebitelei iskliuchitel'no gaz sobstvennoi dobychi', www.president.gov.ua, 6 January 2009

[36] 'Eto nado delat' publichno', www.interfax.ru, 7 January 2009.

[37] 'Ukraine closed last transit pipeline to Europe', *Ukrainefacts*, 7 January 2009; 'NJSC Naftogaz of Ukraine is indignant at OJSC Gazprom's statements', Naftogaz Ukrainy website, 7 January 2009.

deployed at key entry and exit points on the transit and storage network.[38] But even then there was a last minute problem when Prime Minister Timoshenko, the final party to sign, appended a handwritten note to the effect that her signature was subject to a 'declaration', which effectively restated the Ukrainian commercial position blaming the Russian side for the entire episode. Unsurprisingly, the Russian side was not willing to accept this, and another day was lost while the same document was signed again by all parties, this time without the Ukrainian declaration. Monitors were deployed on 11 and 12 January.[39]

Any hopes that the deployment of monitors would allow gas flows to resume rapidly dissipated, and the period 13–17 January was spent in mutual recriminations. The Russian side again claimed that its attempts to flow gas were being blocked. The Ukrainian side repeated that no gas was being delivered, and also argued that no supplies could be received because of the lack of a technical agreement between the parties.[40] The Ukrainian position was presented in a letter and accompanying draft agreements, sent by Naftogaz General Director Dubyna to Gazprom CEO Miller. Dubyna argued that Gazprom should not only provide technical gas, but also linepack gas of 140 mmcm for the restart of deliveries.[41] By this time, the situation, particularly in south-eastern Europe, was becoming desperate. At this point, we proposed from the Natural Gas Programme at the Oxford Institute for Energy Studies that, given the failure of monitors to resolve the crisis, the EU itself should offer to provide finance for linepack and technical gas, in order to get supplies moving to alleviate the humanitarian crisis in the Balkans.[42]

A significant detail about the second phase of this dispute is that, once the Ukrainian transport system was closed to deliveries of Russian gas, Naftogaz Ukrainy reversed the flow

[38] This is a complicated document which sets out a range of tasks for the monitors in addition to verifying flows. 'Terms of reference for the monitoring of the transit of natural gas through Ukraine', www.gazprom.com/eng/news/2009/01/33576.shtml

[39] 'Chto podpisala Timoshenko s Rossiei i Evrokomissiei', *Ukrainska Pravda*, 13 January 2009 (where the declaration is reproduced in full). In a press release issued 11 January, the Commission tried to finesse this by saying 'nothing in the Ukrainian Declaration adds to, or subtracts from, the Terms of Reference signed by the parties', IP/09/34, Brussels, 11 January 2009; 'EU bid to revive Russia gas deal', BBC News, 12 January 2009; Christian Lowe and Dmitry Zhdannikov, 'Russia–Ukraine deal on gas for Europe in doubt', Reuters, 11 January 2009

[40] In this context 'technical agreement' refers to the requirement for both sides to agree – Gazprom to propose and Naftogaz to accept – daily 'nominations' i.e. volumes of gas to be delivered. In the absence of Ukrainian willingness to accept and confirm nominations, it would not have been possible for Gazprom to deliver gas because of the potential dangers arising from the network not being able to receive it

[41] Letter from Dubyna to Miller and 'Vremennoe tekhnicheskoe soglashenie' published on Naftogaz Ukrainy website, 14 January 2009

[42] Stern, Jonathan, (2009), *Resumption of Russian gas deliveries to central and east European countries on humanitarian grounds: a proposal,* (OIES, January 2009).

in the system, in order to transport gas from Ukraine's storage facilities, which are mostly in the west of the country, to major consuming areas in the south and east. This reversal of one of the world's largest gas transit systems was unprecedented. It seems hard to believe that it could have been undertaken spontaneously, which suggests that, whichever side precipitated the shutdown, Naftogaz's engineers had prepared for it. Indeed, on 12 January, Gazprom announced that it was prepared to start delivering gas through the Sudzha metering station into the pipeline that traverses Ukraine towards south-eastern Europe, but Ukraine refused to accept this offer. Deputy CEO Medvedev claimed that the Ukrainian side had reconfigured the network to flow gas from the storage facilities in the west to supply consumers in the east, using the European transit pipelines in such a way as they were unable to accept Russian gas for transit to Europe.[43] The Ukrainian position subsequently varied between claims that Russia had cut off supplies, and that no supplies could be received because of the lack of a technical agreement between the parties, which could not be concluded in the absence of a supply and a transit contract. Medvedev's claim confirms that Gazprom knew that the Ukrainian system was at this point working in reverse, and that Naftogaz could not accept gas through only one pipeline corridor without returning the flow to an east–west direction, making it impossible to supply large population centres in eastern Ukraine in particular.[44] Not surprisingly, Naftogaz rejected this proposal and called for deliveries to be restarted simultaneously through all pipeline corridors.[45]

European gas companies, who in general did not comment on the dispute in its early stages, were by this time placing increasing pressure on Gazprom for a resolution. On 15 January, Prime Minister Putin proposed an 'innovative' solution in consultation with Paolo Scaroni, CEO of ENI of Italy: a consortium of European utilities would provide a temporary financial solution to the crisis by paying for the necessary linepack and technical gas in order to restart

[43] Interview with Alexander Medvedev on Ekho Moskvi, 12 January 2009; This was confirmed by Prime Minister Timoshenko in discussion with the European Commission and Eurogas, *Interfax*, 30 December 2008–14 January 2009, p.4.

[44] Work by Aleksandar Kovacevic suggests that Ukraine could either have resumed transit through a single pipeline (or eventually swap gas from storage), or shifted the entire network back into normal supply and transit mode. The intermediate solution that was attempted, with the monitoring mechanism requiring Ukraine to resume full scale transit to Europe without taking gas for its own use, was simply unrealistic taking into account the structure and geography of Ukrainian gas consumption.

[45] 'Naftogaz vriatuvav Odesu i Donets'k, ne pustivshi gaz na Balkani', *Ekonomicha Pravda*, 13 January 2009; 'NNJSC "Naftogaz of Ukraine" requires immediately to resume regular gas supplies via all the transit corridors', press release on Naftogaz website, 13 January 2009; 'Prem'er-ministry Bolgarii, Slovakii i Moldavii lichno ubedilis', chto Ukraina blokiruet tranzit gaza v Evropu', Gazprom press release 14 January 2009; Paxton, Robin et al, 'Ukraine draws on gas reserves in prolonged row', Reuters, 13 January 2009. See also interview with Aleksander Medvedev on Ekho Moskvy, 12 January 2009; Prime Minister Timoshenko in discussion with the European Commission and Eurogas, *Interfax*, 30 December 2008–14 January 2009, p.4.

flows, while negotiations on contracts continued.[46] But in the event, no such arrangement was needed as the two sides finally negotiated two new contracts covering supply and transit which were signed on 19 January. Gas flows to Europe restarted on the morning of 20 January and two days later were returning to normal levels.

[46] 'Innovative solution to allow gas transit to resume', *Ukrainefacts*, 15 January 2009. This mentions a volume of 1.7 bcm needed for linepack and technical gas, much higher than other accounts.

4 The resolution of the Commercial Dispute: the 10 year supply and transit contracts

On 19 January, Prime Ministers Putin and Timoshenko signed an agreement to end the dispute, and the heads of Gazprom and Naftogaz signed supply and a transit contract, both covering the ten year period 2009–19. On the 22nd leaked copies of the contracts were published on the *Ukrainska Pravda* internet news site.[47] The contracts are complex documents, and only the most important provisions are included here, as follows:[48]

-- *The supply contract (Article 2) provides for 40 bcm of gas to be delivered to Ukraine in 2009 and 52 bcm annually (the annual contract quantity) from 2010 to the end of the contract period.* Volumes are stated for each three monthly period for 2009–10.[49] Unless the parties agree, the volume in any one year cannot exceed 120 per cent of the annual contract quantity, and there is an 80 per cent take or pay provision.

-- *Prices will be 80 per cent of a 'European price' in 2009 and 100 per cent from 2010 (Article 4).* For the first quarter of 2009, the price will be $360/mcm based on a 'European price' (Po) of $450/mcm minus 20 per cent. It appears that this Po is a price 'netted back' from a European (possibly German) border, which would mean that it is based on a European price of around $495/mcm. The price will change quarterly according to the average of 50 per cent gasoil/50 per cent fuel oil prices over the previous three quarters with no 'lag'. The formula has a number of technical specifications (prices to be taken from Platts Oilgram monthly European averages, fuel oil is 1 per cent sulphur, etc.).

-- *There are strict rules on taking extra gas, and strict payment terms, for Naftogaz Ukrainy.* There are price consequences of taking more gas than agreed in the contract; this will be charged at 150 per cent of the contract price in the months April–September and 300 per cent during October–March (Article 4.3). The price clause can be renegotiated in the event that either side believes it no longer reflects market conditions (Article 4.4). Naftogaz Ukrainy is required to pay monthly for 100 per cent of gas delivered by the 7th day of the

[47] *Ukraine Russia Supply Contract* and *Ukraine–Russia Transit Contract*. Note that the copies of the contracts supplied to the newspaper missed a few words or lines off the bottom of some pages.
[48] However they are considerably shorter and less complex than their European counterparts.
[49] Article 2.1 states that the gas may be supplied from Russia, Kazakhstan, Uzbekistan, and Turkmenistan.

month following the delivery month (Article 5). However, should the buyer fail to make that payment by the due date, at any time during the contract, then it will be required to pay for the following month's gas in advance, by the last day of the preceding month, for the remainder of the contract (Article 5.8).

-- *Sales will be made directly by Gazprom to Naftogaz Ukrainy on Ukraine's borders with Russia and Belarus (Article 2).* This means that RUE will no longer ship or supply gas to Ukraine.

-- *Gazprom's wholly-owned Ukrainian trading subsidiary, Gazprom–Sbyt, will market at least 25 per cent of the imported gas*, i.e. 10 bcm in 2009 and 13 bcm/year from 2010 (Article 9.7). These sales are to be made to industrial customers, who pay substantially higher prices, and are better payers, than those in the residential and district heating sectors. Under agreements concluded in March 2008, Gazprom–Sbyt bought gas from Naftogaz and its mark-up was limited to $0.01/mcm. Whether this provision will continue is not specified.

The main points of the transit contract are:

-- *The annual transit volume for the ten year period will be not less than 110 bcm*, and in 2009 the volume will be 120.083 bcm (Article 3).[50] Quarterly volumes to be delivered in 2009 to Moldova and Europe by each individual transit pipeline are specified.

--*The transit tariff will be $1.7/mcm/00km in 2009 although the revenue which Ukraine will receive should take into account an advance payment of $250m which Gazprom made under an amendment to the previous transit contract.*[51] From 2010, the tariff will be $2.04/mcm/00km plus an element based on 2009 prices which, if they average $250/mcm will add $0.6 to the tariff. From 2011, the tariff will comprise 50% of $2.04 plus 50% of the previous year's tariff indexed to European Union inflation rates (Article 8).

[50] The fact that Gazprom appears to have taken on a commitment to transit at least 110 bcm/year through Ukraine for the duration of the contract is very strange given the clear imperative to build Nord and South Stream which would greatly reduce deliveries through Ukraine below such levels. This can perhaps be explained by other wording in the contract allowing renegotiation of terms if conditions change.
[51] See Dopolnenie 4 of the June 2002 contract dated August 4, 2004. For details of the 2002 contract see section on major points of dispute below.

-- *Gazprom will make an advance payment for transit services of $1.7 billion, under an annex to the contract.*[52] This money must be used to pay 'legal claims on RUE transferred in favour of Naftogaz by Gazprom [or its affiliates]'. The nature of these claims is not stated, but detailed reports of leaked Ukrainian government correspondence, which appear to corroborate statements made by Prime Minister Timoshenko, suggest that these claims may be settled with the transfer to Naftogaz of 10.5 bcm of gas that belonged to RUE and was being stored in Ukraine. If the transaction is closed in the manner reported, Naftogaz will acquire this gas at around $153/mcm. The transaction may also cover linepack and technical (fuel) gas used by Ukraine during the first week of the dispute, and make redundant the agreement between the six European gas companies and Gazprom on that issue referred to above.[53]

Both contracts include provision for international arbitration in Stockholm.

From this brief summary of the main points of the contracts, several issues immediately arise:

- The first of these is that Naftogaz Ukrainy will face a tremendous struggle to make the monthly payments required by Articles 4 and 5 of the supply contract. Payment for imported gas has been a problem for Ukraine throughout the entire post-Soviet period, and it would be surprising if this were to change in future, particularly given higher prices. Article 4.6 of the supply contract states that the value of all volumes imported to Ukraine in 2009 is $14.4 billion, but this assumes a price of $360/mcm for the entire volume (see notes to Table 1), and the price paid will be much lower. Nevertheless, it will be a burden on Ukraine. This needs to be considered in the context of:

  (a) the substantial deterioration in Ukraine's terms of trade and its current account position, due to the coincidence of falling international prices for steel, its main export, the increase of the price of imported gas, and the general effects of the economic crisis;

[52] Russia–Ukraine Transit Contract, Dopolnenie 1.
[53] 'Gazovy direktivy. Zaradi znishchennia Firtasha Timoshenko porushila zakon?', *Ukrainska Pravda*, 21 January 2009. See also report of Timoshenko press conference, *Interfax*, 15–21 January 2009, p. 6.

(b) the serious fiscal crisis that moved the IMF to make its $16.5 billion loan to Ukraine, and the falling value of the hryvna (from 5:1 to 7.7:1 against the dollar over the last four months); and

(c) the Ukrainian political crisis, which may affect the level and character of state support for Naftogaz.

The means available to Naftogaz to pay for imported gas are (a) revenues from Ukrainian customers (in broad terms, at the tariffs set in January, these would be in the best case – i.e. assuming that demand is sustained, which is questionable during the recession – about $7.7–7.9 billion for sales of 30 bcm to industrial customers, and $900–950 million for sales of 10 bcm to district heating companies),

(b) some of its transit revenue income (expected to be $2.35 billion, minus the $1.7 billion advance payment), and in any case sufficient transit revenue to cover the cost of 7 bcm of technical gas, and

(c) government subsidies. Again this emphasizes the extent to which Naftogaz's ability to pay will depend on the type of support it receives from government.

- Furthermore, despite all the claims by both sides about the likely level of gas prices in 2009 and beyond, these will completely depend on oil prices. Speculation that prices will average between $190–250/mcm for 2009 is mainly aimed at vindicating the claim of one side or the other that they had 'won' the negotiation on prices. It will not be possible to give a price for 2009 until the end of the year, when we shall know the level of oil prices (on which gas prices will be based). An alternative method of calculating the 2009 price will be to take the different quarterly gas import volumes at the different quarterly prices and derive a single average figure for the year.[54]

In these circumstances, there must be a concern that payments will again become an issue of dispute between the companies which could once again escalate – as in this crisis – to the point of disconnection, with consequent impacts on European supplies.

[54] Article 2.2.1 of the supply contract gives the following volumes: Q1 – 5 bcm, Q2 – 10.5 bcm, Q3 – 12 bcm, Q4 – 12.5 bcm. This means that Ukraine will be purchasing the least gas at the higher price of $360/mcm in the first quarter, and most of its volumes in the second half of the year when it is anticipated (but not certain) that prices will be lower.

However, these two contracts definitively change the methodology of Ukrainian gas pricing. While the prices charged to Ukraine by Gazprom/RUE during 2006–8 had been 'netted forward' from Central Asia, i.e. based on Central Asian purchase prices, plus transportation charges plus the RUE profit margin, the prices in the new 2009 contracts are intended to be European netback market prices, based on and indexed to oil products. Thus from now on, prices of, and transportation charges for, Central Asian gas, are no longer relevant for Ukraine. This is an advantage for Ukraine because it removes the risk of having to accept prices agreed between Gazprom and Central Asian countries over which it has no control. In the event, those parties appear to have agreed a price for exported central Asian gas of around $300/mcm for 2009, which would have resulted in a price for Ukraine similar those under the European formula for the first quarter of the year.[55]

Only a few weeks after these contracts have been signed it is hard to speculate on their future. President Yushchenko, while promising to 'abide by' the contracts, has said that Ukraine has made a 'bad deal', which is 'not based on partnership'. Within a week of the conclusion of the dispute, Yushchenko's staff reviewed the agreements with a view to renegotiating them, and the presidential website published a lengthy legal commentary, suggesting that Ukraine could renegotiate the agreements because they are 'discriminatory'. All this suggests that, in addition to Ukraine's difficulty in paying for imported gas, the political divisions about the agreements in Kiev could mean that further disputes will arise.[56]

[55] And possibly throughout the year if the Central Asian price formulae also have quarterly adjustments with oil product indexation.
[56] 'President makes comment on gas deal with Russia', website of Ukrainian presidency 20 January 2009; 'Gas dispute should not be considered economic or financial', ibid., 28 January 2009; 'Gazovye soglasheniia dolzhny vypolniat'sia, odnako ikh osnovatel'nyi analiz tozhe neobkhodim – Igor' Pukshin', ibid., 28 January 2009;' Tony Barber, 'Yushchenko pledges to honour "bad" gas deal', *Financial Times*, 28 January 2009

5 The Position of Gazprom and the Russian Government

It is often asked whether there are any differences between the view of Gazprom and the Russian government. Since the latter has a controlling interest in the company and, directly or indirectly, appoints and/or approves all major personnel appointments, some believe that Gazprom operates as an economic and political arm of the government. This crisis showed Gazprom and the government working together, with the company taking its strategic direction from Prime Minister Putin, presumably with the tacit agreement of President Medvedev who only sporadically issued statements.[57] Thus while President Putin was in charge of Russian decision making during the January 2006 crisis, Prime Minister Putin was clearly in charge in January 2009.

Gazprom's performance in the 2009 crisis compared well with its lamentable performance during the January 2006 crisis, where little was said publicly, and its (relatively coherent) commercial case for a higher price was drowned out by accusations that it was using energy as a political weapon against Ukraine's Orange Revolution and its president, who Moscow had desperately tried to prevent coming to power. The company handled the 2009 crisis much more professionally. In mid December 2008, as debts were mounting and warnings were being issued about the likelihood that supplies would be cut off, with potentially adverse consequences for European supplies, a Gazprom delegation headed by Alexander Medvedev (no relation to the president), one of the company's Deputy CEOs and head of Gazprom Export, toured European capitals – including Brussels. He explained the situation and warned of potential problems.[58] On December 29, as it was becoming clear that deliveries to Ukraine would probably be affected, Gazprom opened a website for the crisis – *Ukrainefacts* – which carried daily reports of meetings, press conferences, and the company's version of events as they unfolded.

A number of themes emerged. First, while Gazprom completely refuted any suggestion that it was using gas as a political weapon, from the beginning of the crisis the company repeatedly accused the Ukrainian president of ultimate responsibility for the crisis. According to

[57] See for example: Conversation between president Medvedev and Gazprom CEO, http://english.pravda.ru/russia/kremlin/106927-gazprommedvedev-0

[58] *Ukrainefacts* 6 January: After the events of 2006–07 we established an early warning system with our partners, customers, and European customers and have been keeping them informed.

Gazprom, on 31 December, when the majority of the debt had been cleared, Prime Minister Timoshenko and Naftogaz CEO Dubyna had accepted an agreement which included a price of \$250/mcm and a transit tariff of \$1.7/mcm/00km, but Timoshenko was prevented from flying to Moscow to sign the deal by the president. (This was denied by Yushchenko).[59] Thus one of Gazprom's strongest arguments was that the basic problem lay in a power struggle for the future presidency between Yushchenko and Timoshenko, whose aim was to use the dispute to score domestic political points with the Ukrainian electorate. As a result, Naftogaz Ukrainy, which has no independent access to foreign currency without the approval of its president and prime minister, had no mandate to negotiate. On 1 January, Gazprom press secretary Kuprianov said: 'The main problem was not that we disagreed on the price of gas but that the Naftogaz delegation did not have a mandate to sign a new contract'. This was targeted specifically at the Ukrainian president by Alexander Medvedev on 6 January at a press conference: 'The Ukrainian delegation left the negotiating table six hours before the deadline. We understand that Mrs Timoshenko had accepted the proposed terms but this was blocked by Mr Yushchenko'.[60]

On 3 January, Gazprom announced that it had taken the decision to file proceedings against Naftogaz Ukrainy at the International Arbitration Court in Stockholm with reference to breaches of the June 2002 transit contract guaranteeing unimpeded transit of European gas across Ukraine for the period 2003–13.[61] It was also reported that RUE had made two similar filings with the Stockholm Court, one relating to transit and the other to volumes of gas in storage, to which the company has allegedly been unable to obtain access.[62] The status of this transit contract is a key legal issue in the dispute, and Gazprom published a legal opinion it had commissioned which, unsurprisingly, concluded that the contract remained valid and in effect.[63]

On 13 January, Gazprom informed all its European customers that it had declared *force majeure* on all of its European gas contracts. This is an extremely unusual instrument to be invoked in European gas contracts and is usually relevant only in the case of accident or

[59] *Interfax*, 30 December 2008–14 January 2009, p.10.
[60] 'Gazprom Deputy Chief Executive Alexander Medvedev spoke to journalists in London', *Ukrainefacts*, 6 January 2009.
[61] *Ukrainefacts*, 3 January 2009.
[62] '"Rosukrenergo AG" podalo iski v Stokgolmskii arbitrazh na Naftogaz, kotoryi ne vydaet treideru gaz iz khranilishch', 3 January 2009, www.interfax.ru
[63] For details of the transit contract see the section on 'major points of dispute' below, *Ukrainefacts* 5 January, opinion from the law firm DLA Piper

technical failure. While we have no claim to legal expertise, we question whether *force majeure* is applicable in a situation in which the contractual relationship between two parties in a transit contract has prevented the terms of a supply contract from being fulfilled.

Even if Russia's most serious allegation against Ukraine, that it shut down the pipeline system on the night of 6–7 January, were proven, Russia clearly played its part in widening the scope, and therefore prolonging, the dispute. The Russian offer, prior to the end of the year, of export prices for 2009 of $250/mcm (in our view slightly high, but a realistic negotiating position), was then replaced (as the Russian side had previously warned) by the unrealistic price range of $400–450/mcm; which seemed a triumph of exasperation over logic. On 6 January, in response to Ukraine's use of Russian gas for technical purposes, Gazprom (by its own account) reduced the flow of gas into the pipeline system to 65 mmcm for that day, less than half of what was needed, even had Ukraine replaced what it had taken. By turning the issue of technical gas into one of principle, and describing this gas as 'stolen', Russia helped to escalate the dispute in a way which eventually led to the disruption of supplies to Europe.[64]

Given that the alleged theft of 65.3 mmcm (or even 115.3 mmcm if we add in the additional 50 mmcm) is a relatively small volume of gas over a period of four days, given a daily transit volume of 250–300 mmcm, the crucial question is why the Russian side was prepared to take this risk. At stake were direct European sales losses of around $100m/day plus penalties for failing to deliver under these contracts, plus possible damages claims.[65] These losses could only be recouped in the event that litigation for damages in the Stockholm court would be successful, but in the best case this would be some years hence. Moreover, it should have been immediately clear that Russia's reputation as a reliable supplier of gas, built up over 40 years, would be irrevocably damaged. In addition, given the parlous state of the Ukrainian economy, it was not realistic to expect that the country would be able to pay a very substantially higher price for gas in 2009. Having made those – not very difficult –

[64] Even on 13 January, when Gazprom attempted to resume supply, it chose to do so via the Sudzha entry point towards the Orlovka exit point in order to highlight the inability to transit gas through this route which certainly did not help to resolve the impasse. 'Resumption of transit gas flow through Ukraine', *Ukrainefacts*, 13 January 2009.

[65] In the immediate aftermath of the crisis, a number of countries – specifically Bulgaria and Greece – mentioned losses of $333m and Euros 1bn for which they might seek damages. *Interfax*, 22–8 January 2009, p.14; 'Bulgaria to claim damages from Gazprom and Wintershall over stoppage', *Gas Matters Today*, 23 January 2009. The Hungarian prime minister suggested the EU should take action on behalf of member states to recover damages, 'Russia–Ukraine deal reopens the pipes', *International Gas Report*, February 2, 2009, pp. 3–5.

calculations, the Russian side, despite its conviction that it was legally and contractually in the right, could have stepped back and, albeit with a loss of political 'face', accepted a lower price from Ukraine for its gas. Russia's actions indicate that, for its government – and specifically for Prime Minister Putin – pursuing its dispute with, and in some sense punishing, Ukraine, was a higher priority than ensuring that gas supplies to European customers were maintained, which was in Gazprom's long term (and probably even short term) commercial interest. Such a conclusion inevitably leads to further political speculation as to whether Putin's decision was aimed at further destabilising an already unstable Ukrainian economy and political system, and particularly the Ukrainian president for his pro-EU and NATO policies and support for Georgia in the August 2008 conflict, although it is not clear what he could have hoped to gain from such action, even had it been successful.

This in turn raises the general question of the relationship between political and economic factors in Russian and CIS gas trade. The authors of this paper have been among those who have insisted that economic factors played a greater role than is assumed in much of the commentary. With respect to the 2006 dispute between Russia and Ukraine, one of us wrote recently: 'To portray Gazprom's tough stance on prices as motivated by political revenge, or to depict its policy on pipeline infrastructure [i.e. seeking control of it] as simply a projection of Russian imperial ambitions, would be as naïve as to deny the role of politics altogether. [...] For Moscow, the price reform is an end in itself, as part of market reforms. Gazprom's drive to take control of pipeline infrastructure [...] has primarily an economic motivation, i.e. Gazprom's concern with ensuring uninterrupted supply to its European customers, who remain its key source of sales income.'[66]

These arguments stand up well with respect to the 2006 dispute. Since then, the most important changes have been economic. The sharp falls in oil prices in the last six months have brought Russia's oil boom to an end; the market capitalization of Gazprom and the Russian oil companies have fallen by 60–75 per cent; the credit crunch has combined with these factors to make it difficult for them to raise investment capital.[67] The fall in European gas prices that will this year result from lower oil prices will impact heavily on Gazprom's export revenues. Under these conditions, it was to be expected that Gazprom would drive as

[66] Pirani (ed.), *Russian and CIS Gas Markets*, p. 445.

[67] Gazprom's market capitalization is estimated to have fallen by 75 per cent during 2008. Carola Hoyos, 'National oil groups' shares hit harder by downturn', *Financial Times*, 26 January 2009.

hard as possible a bargain on Naftogaz's outstanding debts, and on 2009 prices and transit fees. What was unexpected, at least to us, was that the Russian government and Gazprom would play its part in allowing the dispute first to escalate to the point where supplies to Europe were completely cut off, and then to allow this situation to continue for two weeks. All previous transit crises – including 2006 – pale into insignificance in comparison with the January 2009 events.

The most convincing explanations of Russian actions are that from 1 January, once gas had been cut off:

(i) Russian government and Gazprom management set out intentionally to embroil Europe in the dispute with Ukraine, in the hope of joining with Europe to impose a new regime on the Ukrainian transport system. The transit issue, which has been a subject of dispute between Moscow and Kiev for years, has now become a matter of public discussion in the EU. The introduction of EU monitors could be the prelude to greater European gas company involvement; the consortium proposal (see the section on European gas companies below), which was never implemented, could have been another possible step in this direction. Moreover, in an interview with German television, Putin stressed that Russia still considers revival of the 2002 gas transit consortium, which began as a Russian–German–Ukrainian initiative, as a viable solution to the transit problem.[68] This was a highly provocative suggestion and may have been a response to the December 2008 USA–Ukraine Charter on Strategic Partnership, which included proposals on joint rehabilitation and modernization of gas transit infrastructure, leading to Russia accusations that the USA bore some responsibility for the crisis.[69] Putin's suggestion led to a predictably swift negative response from the Ukrainian president.[70] The aftermath of the crisis has seen well-reasoned arguments in favour of a consortium including Gazprom, Naftogaz,

[68] Interview published on www.government.ru/, 15 January 2009
[69] United States–Ukraine Charter on Strategic Partnership, Section III(2), US Bureau of European and Asian Affairs, Washington DC, December 19, 2008. Pinchuk, Ellen and Bradley Cook, 'Putin blames Bush for Ukraine gas war; is "optimistic" on Obama', *Bloomberg*, 26 January 2009.
[70] See, possibly in response to the Putin suggestion, the statement by President Yushchenko reaffirming this position: 'Ukraine will never agree to a change of ownership of its gas transit system', 14 January 2009, www.president.gov.ua/en/news/12605.html

European energy companies, and international financial institutions, but such an option still faces many political obstacles, particularly in Ukraine.[71]

(ii) Prime Minister Putin and Gazprom management, exasperated with what they saw as Ukraine's ability to blackmail them with threats to reduce supplies to Europe, and, even without any particular goal in mind, decided that a prolonged reduction was worth risking in order to achieve a redefinition of transit relations. Russia has always sought a transfer of ownership of the pipeline system to Gazprom, but failing that, it hoped to enforce some other solution.

In either of these cases, once battle had been joined, it appears that voices less willing to compromise gained the upper hand.

[71] Gnedina, Elena, and Michael Emerson, *The Case for a Gas Transit Consortium in Ukraine: a cost-benefit analysis*, CEPS Policy Brief No. 180, January 2009.

6 The Ukrainian positions

The presentation of Ukraine's position on the dispute has been marked by the lack of unity in the government and, specifically, the deep divisions between President Yushchenko and Prime Minister Timoshenko. On 31 December, the prime minister's office stated that she had been due to fly to Moscow to help Naftogaz officials resolve the dispute, but had cancelled her trip at the last minute; it was suggested that the president was in some way responsible.[72] A political analyst close to the prime minister has argued that the president's office not only schemed to keep the prime minister out of the negotiations, for fear that she would resolve them successfully and take credit, but also encouraged Oleg Dubyna to send his letter, threatening to disrupt transit of Russian gas to Europe, in order to make resolution more difficult.[73] Whether or not this particular version of events is true, it is clear that some in the Ukrainian government were more prepared to make compromises with Moscow than others, and as a result mixed messages were sent out.

Notwithstanding these differences, on 1 January 2009, the president and prime minister jointly presented Ukraine's proposals for resolving the dispute. They referred to the Putin–Yushchenko agreement of 12 February 2008, and the Putin–Timoshenko agreement of 2 October, as 'substantial steps' towards improved collaboration. They proposed import prices of $201/mcm, and transit tariffs of $2/mcm/100km, claiming that these conformed to the methodology in the Putin–Timoshenko memorandum. They called for Russia to ensure, jointly with Ukraine, that transit to Europe would be uninterrupted, and proposed that 'accounts for mutual obligations (including for technical gas see Box 2) should be corrected and mutually settled' once negotiations on 2009 prices were signed.[74] Another consistent element in the Ukrainian position from 1 January was that, under conditions where Ukraine is transiting but not importing gas from Russia, and in the absence of either a new contract or an intergovernmental memorandum as required by the transit contract for 2003–13, technical gas needed to be provided by Russia. This was Naftogaz's justification for taking 21 mmcm/day

[72] Yushchenko (see footnote 59 above) suggests that she was already on her way and turned back.
[73] Ibid and Vasilii Stoiakin, 'Kto sorval gazovye peregovory?', *Ukrainska Pravda*, 12 January 2009
[74] 'Zaiavleniie Ukrainy o postavkakh i tranzite rossiiskogo prirodnogo gaza', www.president.gov.ua, 1 January 2009

of technical gas from volumes destined for Europe, and thus driving the dispute to a new level. It made this point formally to Gazprom in published correspondence.[75]

Naftogaz published on its website the decision of the Kiev arbitration court of 9 January 2009, upholding an application from the energy ministry that the transit contract for 2003–13 was null and void, because intergovernmental memoranda which, under the contract, should set out transit fees, had not been signed. While the joint statement from president and prime minister, and other statements by Naftogaz, have reiterated that Ukraine considers itself duty-bound to transit gas, but have argued that it must be supplied with technical gas from Russia in order to do so, this decision implied that transit should be stopped altogether. The Ukrainian energy minister, Yuri Prodan, claimed that this decision effectively outlawed gas transit under the contract. While we cannot venture a legal opinion, we would assume that the parties to the contract, which was signed under international law with provision for arbitration at the Stockholm commercial court, would not be subject to the Kiev commercial court's decision; nor could that court's decision override Ukraine's duties as a signatory of the Energy Charter treaty to transit gas.[76]

Even if Ukraine's most serious allegation against Russia, that Gazprom unilaterally shut off gas supplies on the night of 6–7 January, were proven, Ukraine has clearly played a big part in provoking and prolonging the dispute. It had already shown in January 2006, and unequivocally threatened in March 2008, that it would respond to Russian cut-offs by diverting volumes bound for Europe. The threat to do so again, made in Dubyna's letter to Gazprom on 31 December (assuming it is genuine), could only have been calculated to obstruct a settlement. Ukraine made its final payment for gas received in 2008 ($1.52 billion on 30 December) so late that there was little possibility either of resolving the issue of alleged fines and penalties, or of completing a negotiation on 2009 import prices, before Ukraine's supply was cut off. Ukraine's demand that Russia provide technical gas – a departure from the normal practice that the transit country provides it – further raised the stakes. As noted above, on 10 January, when signing the EU memorandum on the terms of reference for the monitoring agreement, Prime Minister Timoshenko attached a declaration to it that she can

[75] Letter from O. Dubyna to A. Miller, 14 January 2009, draft 'Soglashenie o merakh, obespechivaiushchikh tranzit rossiiskogo prirodnogo gaza cherez territoriiu Ukrainy', and draft 'Vremennoe tekhnicheskoe soglashenie', all published on Naftogaz Ukrainy website, 14 January 2009;.
[76] Economic Court of Kyiv, Decision in the name of Ukraine (case no. 5/5), 9 January 2009, published on Naftogaz Ukrainy website, 13 January 2009; facsimile pages of a leaked copy of the contract in question are at www.pravda.com.ua/news/2005/12/22/36935.htm

not have expected Russia to accept, effectively torpedoing the efforts to restart transit pending a resolution of the Russo–Ukrainian dispute. A key weakness in the Ukrainian position on monitors is that, because Ukraine had already decided that it would not accept any transit gas without having signed a technical and a transit agreement, monitors would make no immediate difference to the resumption of gas supplies to Europe. Hence, at a minimum, participation in the monitoring agreement, without making that position clear to all parties, was an exercise in bad faith by the Ukrainian side which prolonged the dispute by at least some days.[77]

The most obvious risk that Ukraine has taken by prolonging the dispute is to its reputation in Europe as a transit country. One certain outcome of the dispute is that there will be an even greater determination from Gazprom – and perhaps also from European countries – to build the North Stream and South Stream transit avoidance pipelines, which will impact heavily on Ukraine's gas transit business. Some in the Ukrainian political elite may have thought the reputational damage to Russia would be greater than that to Ukraine – but they can not have confidently planned such an outcome. It is much more likely that, to the extent that there was any planning, the calculations were short term:

(i) because of sharply reduced industrial demand and warmer weather late last year Naftogaz had 16 bcm of gas in storage, meaning that Ukraine could survive a gas cut-off for several weeks;

(ii) as oil prices fell sharply in the second half of 2008, European gas prices would fall sharply from March 2009 (since they are mostly indexed to 6–9 month averages of oil product prices with a three month delay).

Certainly, the falling oil prices prompted Ukrainian politicians from November to call for formulae with a more immediate link to oil prices, allowing for gas prices to fall sooner. This was a slight departure from traditional European price indexation, and from the approach taken by the Putin–Timoshenko memorandum. People might well have gambled on using gas in storage and waiting, as falling prices weakened Gazprom's bargaining position.[78]

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[77] The monitoring agreement was negotiated during 7–10 January and finally signed on 11/12, but Dubyna's letter and draft agreements which Naftogaz required to be signed before transit would be allowed to restart, were not sent to Miller until 14 January, see note 75 above.

[78] 'U Ukrainy est' 16 mlrd. kub m. gaza', RBK–Ukraina, 22 December 2008; Alla Eremenko, 'Glavnoe, ne zatianut' do paskhi', *Zerkalo Nedeli*, 8 November 2008; Vasilii Kashin et al, 'Gazovaia intriga', *Vedomosti* 29 December 2008.